

**Remarks begin on page 3 of this paper.**

If an extension of time is required to enable this paper to be timely filed and there is no separate Petition for Extension of Time filed herewith, this paper is to be construed as also constituting a Petition for Extension of Time Under 37 CFR § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

No fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees which may be required, or credit any overpayments, to Deposit Account No. **502806**.

**Please link this application to Customer No. 38441 so that its status may be checked via the PAIR System.**

Reconsideration of the application in view of the following remarks is respectfully requested.

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**REMARKS****I. STATUS OF APPLICATION**

Claims 1-5, 7-19, 21-28, and 38-48 are pending in the present application. Applicant acknowledges with appreciation the indication in the Office Action that claims 1-5, 7-19, 21-28, and 48 are allowed. Moreover, the indication in the Office Action that the replacement drawing of Figure 1 provided with Applicant's response to the last Office Action is approved is acknowledged with appreciation. No claims are amended, canceled, or added in this paper. Claims 38-47 stand rejected under 35 USC § 103(a), as being unpatentable over U.S. Patent 6,637,699 to Banks *et al.* ("Banks") in view of U.S. Patent 4,272,040 to Bastian *et al.* ("Bastian").

**II. 35 USC § 103 REJECTION**

Claims 38-47 stand rejected under 35 USC § 103(a), as being unpatentable over Banks in view of Bastian. Applicant respectfully asserts the rejection is *prima facie* deficient because the prior art fails to disclose or even suggest each and every element of the claimed invention.

**A. BANKS AND BASTIAN FAIL TO TEACH OR SUGGEST ALL OF THE LIMITATIONS OF CLAIMS 38-47**

To establish a *prima facie* case of obviousness, the prior art must disclose each and every element of the claimed invention.<sup>1</sup> Independent claims 38 and 43 each recites "a bearing disposed between each of the spur gears and the blast tube." The

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<sup>1</sup> *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

Office Action alleges that Banks discloses "a bearing (*i.e.*, Fig. 3, elements 366, 368, and 370) disposed between each of the spur gears and the central tube."<sup>2</sup> Banks teaches "each of the roll ring gear 302, the yaw ring gear 304, and the pitch ring gear 306 are rotatably mounted to a **flange 220** (shown in FIG. 2) **of the gearbox 212** via a bearing 366, 368, 370, respectively"<sup>3</sup> (emphasis added). Banks' flange 220 is not a blast tube. In fact the Office indicates on the record that Banks fails to disclose a blast tube.<sup>4</sup>

Moreover, the Office Action alleges that Bastian discloses "[a] blast tube (*i.e.*, Fig. 1, element 8)."<sup>5</sup> The Office Action, however, fails to identify wherein the prior art teaches or suggests any bearing disposed between a spur gear and a blast tube. Bastian, in fact, is silent with regard to any teaching of a bearing between any spur gear and a blast tube. Rather, for example, Figure 5 of Bastian clearly depicts summing gear 47 abutting what is believed to be a forward portion of nozzle 8.

Thus, Applicant respectfully submits that neither Banks nor Bastian, whether taken singly or in combination, discloses or suggests "a bearing disposed between each of the spur gears and the blast tube," as required by independent claims 38 and 43. The Office has failed to indicate wherein either Banks, Bastian, or a combination of Banks and Bastian, teaches or suggests this limitation. For at least these reasons, the rejection of claims 38 and 43 is *prima facie* deficient and should be withdrawn.

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<sup>2</sup> Detailed Action, p. 3, ll. 18-19.

<sup>3</sup> Banks, col. 6, ll. 1-4.

<sup>4</sup> Detailed Action, p. 4, l. 11.

<sup>5</sup> Detailed Action, p. 4, l. 18.

Claims 39-42 depend from independent claim 38 and claims 44-47 depend from independent claim 43. Accordingly, claims 39-42 and 44-47 are allowable over Banks and Bastian for at least the same reasons set forth above concerning claims 38 and 43.

**B. BANKS AND BASTIAN FAIL TO TEACH OR SUGGEST THE LIMITATIONS OF CLAIMS 40 AND 45**

Dependent claims 40 and 45 each recite "a thrust bar mounted to the housing and to the blast tube." The Office alleges that Banks' gearbox 212 is the claimed thrust bar.<sup>6</sup> Banks' gearbox 212, however, is not mounted to a blast tube, as the Office correctly points out that Banks fails to disclose a blast tube. The Office, however, fails to indicate how a person having ordinary skill in the art at the time of the invention would have been motivated to modify Banks' gearbox 212 to be attached to any blast tube, and specifically to Bastian's nozzle 8. Applicant respectfully asserts that a person having ordinary skill in the art ~~at the time~~ of the invention would not have found it obvious to combine Banks and Bastian to produce the claimed invention.

For at least these reasons, which are in addition to the reasons set forth above concerning independent claims 38 and 43, claims 40 and 45 are allowable over Banks and Bastian, whether taken singly or in combination.

**C. OTHER DISTINCTIONS MAY EXIST**

All of Applicant's arguments and amendments are without prejudice or disclaimer. Additionally, Applicant has merely discussed example distinctions from the various references cited by the Office. Other distinctions may exist, and Applicant

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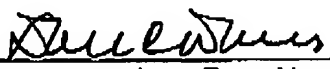
reserves the right to discuss these additional distinctions in a future Response or on Appeal, if appropriate. By not responding to additional statements made by the Office, Applicant does not acquiesce to the Office's additional statements. The example distinctions discussed by Applicant are sufficient to overcome the Office's rejections.

### CONCLUSION

Wherefore, in view of the foregoing remarks, this application is considered to be in condition for allowance, and an early reconsideration and issuance of a Notice of Allowance are earnestly solicited. The Examiner is invited to contact the undersigned at (817) 578-8616 with any questions, comments, or suggestions relating to the referenced patent application.

Respectfully submitted,

11 SEPT 2006  
Date

  
James E. Walton, Reg. No. 47,245  
Michael Alford, Reg. No. 48,707  
Daren C. Davis, Reg. No. 38,425

Law Offices of James E. Walton, P.L.L.C.  
1169 N. Burleson Blvd., Suite 107-328  
Burleson, Texas 76028  
(817) 578-8616 (voice)  
(817) 578-8617 (facsimile)  
daren@waltonpllc.com (e-mail)

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**ATTORNEYS AND AGENTS FOR APPLICANT**

<sup>6</sup> Detailed Action, p. 4, l. 1.